

IN THE ABSTRACT:

Cancel the Abstract as originally filed and substitute the following:

A1
--The invention relates to a method of preventing damage to machines such as machine tools, production machines, and robots, wherein an electrical power supply is monitored by a power supply monitor for the presence and maintenance of a required quality of power and detection of unwanted power supply states which are transmitted in real time so as to cause the initiation of a drive braking function and/or a machine standstill by drive controllers for the motor or motors of a machine.—

IN THE CLAIMS:

Please cancel claims 1-6.

Add the following new claims 7-12:

A2
--7. A method of preventing damage to a machine having at least one drive motor, an electrical power supply system for said motor and a motor drive controller for said motor comprising the steps of
monitoring the electrical power supply system for the presence and maintenance of a required quality of power,
detecting the presence of an unwanted state of the power from said power supply system,

transmitting an indication of said unwanted state in real time to said drive controller;

said drive controller initiating a drive braking function for said motor,

whereby said machine is slowed or brought to a standstill.

A2 ✓
8. The method according to claim 7, wherein said machine has at least two drive motors and a motor drive controller for each motor, one of said drive controllers having master functionality, the indication of unwanted state having been transmitted to said drive controller having master functionality, further comprising the steps of synchronizing the operation of said at least two drive motors with each other, and synchronizing the drive braking function of said motors in response to an unwanted power supply system state.

9. The method according to claim 7, further comprising using a real-time Ethernet for the transmission of an unwanted system state to said drive controller.

10. The method according to claim 8, further comprising transmitting an unwanted system state in real time to the drive controller having master functionality and providing this information to other drive controllers via a real-time cross communication.

11. A machine comprising at least two rotating machine elements,

synchronizable individual drive controllers for one of said drive controllers having master functionality, each of said rotating machine elements,

an electrical power supply system for said machine elements,

a monitor for detecting an unwanted state of said power supply system,

A² a data communication system for transmitting an indication of an unwanted power supply system state to said drive controller having master functionality, said drive controller having master functionality communicating said indication to all other drive controllers, and

braking means for each of said rotating machine elements responsive to their respective drive controllers for synchronously slowing rotation of said machine elements and bringing them to a standstill.

12. A machine according to claim 11, wherein the machine is a printing machine and wherein the data communication system comprises a real-time Ethernet, and a real-time cross communication system for communicating an unwanted system state from said drive controller having master functionality to other drive controllers.--

A "Version With Marked Changes Made" is submitted herewith.